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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/562,255	12/21/2005	Michael Andrew Yuratich	MRKS/0141	3249

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PATTERSON & SHERIDAN, L.L.P.
3040 POST OAK BOULEVARD, SUITE 1500
HOUSTON, TX 77056

EXAMINER	
WRIGHT, GIOVANNA COLLINS	
ART UNIT	PAPER NUMBER
3672	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/562,255	YURATICH ET AL.	
	Examiner	Art Unit	
	GIOVANNA C. WRIGHT	3672	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *30 July 2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,4-9,33,34 and 36-63* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *58-63* is/are allowed.

6)☒ Claim(s) *1,4-9,33,34,36,37 and 44-57* is/are rejected.

7)☒ Claim(s) *38-43* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *12 April 2007* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 7/30/08 has been entered.

Response to Amendment

2. The indicated allowability of claims 1,4-9,33-34,33-37,and 44-57 is withdrawn in view of the newly discovered reference(s) to Kawabata 6025691, Iijima 6462491, and Endo 4879502. Rejections based on the newly cited reference(s) follow.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1,4-9 and 33-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Buchanan et al. 20020066568 in view of Eno 5923111 and Kawabata et al. 6025691.

Referring to claims 1,4, 7-8 and 33-34, Buchanan discloses a method of pumping wellbore liquid comprising installing an electrical submersible centrifugal pump (see fig. 1, at 10) in a wellbore having a AC synchronous permanent magnet motor (90, paragraph 0054). Buchanan does not disclose operating the pump at 7000-7500 rpm or the motors is a three phase motor and the three phases are continuously driven. Eno teaches that permanent magnet motors can operation efficiently at higher rpms which allows smaller pump to be manufactured to be installed in a well (col. 1, lines 25-35). Kawabata teaches that driving all three phases of a three phase motor help to reduce torque ripples (col. 12, lines 2-10). As it would be advantageous to save money on material by manufacturing a smaller pump and to reduce torque ripples, it would be obvious to one of ordinary skill in the art at the time of the invention to modify the method disclosed by Buchanan to operate the pump at 7000 –7500 rpm and to have a three phase motor where the three phases are continuously driven in view of the teachings of Eno and Kawabata.

Referring to claim 5, Buchanan discloses recovering the liquid to the surface (see fig. 1, at arrow pointing to the left).

Referring to claim 6, Buchanan discloses transporting the liquid from a first location (see arrows at 14) to a second subterranean location (see arrow at 34).

Referring to claim 9, Buchanan discloses the pump is operative to draw wellbore liquid from a plurality of lateral wellbores in to a central pump (fig. 9b, paragraph 0048).

4. Claims 36 is rejected under 35 U.S.C. 103(a) as being unpatentable over Buchanan et al. 20020066568 in view of Eno 5923111 and Kawabata et al. 6025691, as applied to claim 1 and further in view of Iijima et al. 6462491.

Referring to claim 36, Buchanan does not disclose a power supply of the motor is located at the surface which models operation of the motor and calculates a rotor position of the motor. Iijima teaches a power supply for a motor that models operation of the motor and calculates a rotor position of the motor without sensors (col. 1, lines 5-35). This allows the power supply to be on a surface so operators can see how the motors is operating and reduces the size and cost of the motor by eliminating the need to run sensors downhole. As it would be advantageous to see how the motor is operating and reduce the size and cost of the motor, it would be advantageous to have a power supply of the motor is located at the surface which models operation of the motor and calculates a rotor position of the motor in view of the teachings of Iijima.

5. Claims 37 is rejected under 35 U.S.C. 103(a) as being unpatentable over Buchanan et al. 20020066568 in view of Eno 5923111 and Kawabata et al. 6025691, as applied to claim 1 and further in view of Endo et al. 4879502.

Referring to claim 37, Buchanan does not a power supply of the motor comprises a variable voltage chopper. Endo teaches that voltage chopper is a known tool for controlling the voltage to a motor (col. 12, lines 40-45). As a voltage chopper is a known tool for controlling the voltage to a motor, it would be obvious to one of ordinary

skill in the art at the time of the invention to further modify the method disclosed by Buchanan to have a variable voltage chopper in view of the teachings of Endo.

6. Claims 44-50 are rejected under 35 U.S.C. 103(a) as being unpatentable over Buchanan et al. 20020066568 in view of Eno 5923111 and Iijima '491.

Referring to claims 44,45,48,49, Buchanan discloses a method of pumping wellbore liquid comprising installing an electrical submersible centrifugal pump (see fig. 1, at 10) in a wellbore having a AC synchronous permanent magnet motor (90, paragraph 0054). Buchanan does not disclose operating the pump at 7000-7500 rpm or a power supply of the motor is located at the surface which models operation of the motor and calculates a rotor position of the motor. Eno teaches that permanent magnet motors can operation efficiently at higher rpms which allows smaller pump to be manufactured to be installed in a well (col. 1, lines 25-35). . Iijima teaches a power supply for a motor that models operation of the motor and calculates a rotor position of the motor without sensors (col. 1, lines 5-35). This allows the power supply to be on a surface so operators can see how the motors is operating and reduces the size and cost of the motor by eliminating the need to run sensors downhole. As it would be advantageous to save money on material by manufacturing a smaller pump and to see how the motor is operating and reduce the size and cost of the motor, it would be obvious to one of ordinary skill in the art at the time of the invention to modify the method disclosed by Buchanan to operate the pump at 7000 –7500 rpm and a power

supply of the motor is located at the surface which models operation of the motor and calculates a rotor position of the motor in view of the teachings of Eno and Iijima.

Referring to claim 46, Buchanan discloses recovering the liquid to the surface (see fig. 1, at arrow pointing to the left).

Referring to claim 47, Buchanan discloses transporting the liquid from a first location (see arrows at 14) to a second subterranean location (see arrow at 34).

Referring to claim 50, Buchanan discloses the pump is operative to draw wellbore liquid from a plurality of lateral wellbores in to a central pump (fig. 9b, paragraph 0048).

7. Claims 51-57 are rejected under 35 U.S.C. 103(a) as being unpatentable over Buchanan et al. 20020066568 in view of Eno 5923111 and Endo et al. 4879502.

Referring to claims 51,52,55,56, Buchanan discloses a method of pumping wellbore liquid comprising installing an electrical submersible centrifugal pump (see fig. 1, at 10) in a wellbore having a AC synchronous permanent magnet motor (90, paragraph 0054). Buchanan does not disclose operating the pump at 7000-7500 rpm or a power supply of the motor comprises a variable voltage chopper. Eno teaches that permanent magnet motors can operation efficiently at higher rpms which allows smaller pump to be manufactured to be installed in a well (col. 1, lines 25-35). Endo teaches that voltage chopper is a known tool for controlling the voltage to a motor (col. 12, lines 40-45). As it would be advantageous to save money on material by manufacturing a smaller pump and a voltage chopper is a known tool for controlling the voltage to a

motor , it would be obvious to one of ordinary skill in the art at the time of the invention to modify the method disclosed by Buchanan to operate the pump at 7000 –7500 rpm and a power supply of the motor comprises a variable voltage chopper in view of the teachings of Eno and Endo.

Referring to claim 53, Buchanan discloses recovering the liquid to the surface (see fig. 1, at arrow pointing to the left).

Referring to claim 54, Buchanan discloses transporting the liquid from a first location (see arrows at 14) to a second subterranean location (see arrow at 34).

Referring to claim 57, Buchanan discloses the pump is operative to draw wellbore liquid from a plurality of lateral wellbores in to a central pump (fig. 9b, paragraph 0048).

Response to Arguments

8. Applicant's arguments with respect to claims 1,4-9,33-34,33-37,44-57 have been considered but are moot in view of the new ground(s) of rejection.

Allowable Subject Matter

9. Claims 38-43 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 58-63 are allowed.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to GIOVANNA C. WRIGHT whose telephone number is (571)272-7027. The examiner can normally be reached on 7:30-4 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David J. Bagnell can be reached on 571-272-6999. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Giovanna C. Wright/
Primary Examiner, Art Unit 3672